

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for transmitting data in a communication system wherein said data is transmitted in communication frames, the communication frames comprising predetermined time slots, the method comprising:

receiving, at a terminal device, one or more scattering instructions, the scattering instructions providing information for partitioning said data into intervals, each interval shorter in duration than each of said predetermined time slots, and placing at least two of said intervals into at least one of said communication frames, the at least two intervals placed within the at least one communication frame in a non-contiguous manner temporally scattering queued data contained within a time at least one portion of a plurality of time slot data of a time slot, the temporal scattering dividing the at least one portion of time slot data into at least two temporally noncontiguous time intervals; and

transmitting the temporally scattered data communication frames.

2. (Original) The method of Claim 1, further comprising receiving configuration information, wherein the one or more scattering instructions are included with the configuration information.

3. (Original) The method of Claim 1, wherein the one or more scattering instructions comprise an index into a memory of stored time-scattering control information.

4. (Original) The method of Claim 3, wherein the memory is disposed within the terminal device.

5. (Original) The method of Claim 1, wherein the one or more scattering instructions comprise a tabular indication of how to temporally scatter the data.

6. (Currently Amended) The method of Claim 5, wherein the tabular indication specifies, by a time interval identifier, a starting location for the scattered data.

7. (Original) The method of Claim 1, wherein the one or more scattering instructions comprise an algorithm for temporally scattering the data.

8. (Currently Amended) A terminal device transmitting data in a communication system wherein said data is transmitted in communication frames, the communication frames comprising predetermined time slots, the terminal device comprising:

a processor;

a memory of stored time-scattering control information coupled to the processor; and

a machine accessible medium, coupled to the processor, having instructions encoded therein, the instructions, when executed by the processor, cause the terminal device to:

receive one or more scattering instructions, the scattering instructions providing information for partitioning said data into intervals, each interval shorter in duration than each of said predetermined time slots, and placing at least two of said intervals into at least one of said communication frames, the at least two intervals placed within the at least one communication frame in a non-contiguous manner temporally scattering at least one portion of a plurality of time slot data of a time slot, the temporal scattering dividing the at least one portion of time slot data into at least two temporally non-contiguous time intervals; and

transmitting the communication frames temporally scattered data.

9. (Original) The terminal device of Claim 8, wherein the instructions, when executed by the processor further cause the terminal device to receive configuration information, wherein the one or more scattering instructions are included with the configuration information.

10. (Original) The terminal device of Claim 8, wherein the one or more scattering instructions comprise an index into the memory.

11. (Original) The terminal device of Claim 10, wherein the memory is part of the terminal device.

12. (Canceled)

13. (Currently Amended) The terminal device of Claim 8, wherein the one or more scattering instructions comprise a tabular indication of how to temporally scatter the intervals time slot data.

14. (Currently Amended) The terminal device of Claim 8, wherein the one or more scattering instructions comprise an algorithmic indication of how to temporally scatter the intervals time slot data.

15. (Currently Amended) A method for transmitting data in a communication system wherein said data is transmitted in communication frames, the communication frames comprising predetermined time slots, the method comprising:

receiving a request from a terminal device for access to a communications channel;
generating a schedule of transmission for the terminal device, the schedule for partitioning said data into intervals, each interval shorter in duration than each of said predetermined time slots, and placing at least two of said intervals into at least one of said communication frames, the at least two intervals placed within the at least one communication frame in a non-contiguous manner dividing the terminal device's transmissions of time slot data of a time slot into at least two temporally non-contiguous time intervals; and

transmitting the schedule of transmission to the terminal device.

16. (Original) The method of Claim 15, wherein receiving the request comprises receiving an indication of the amount of data queued at the terminal device for communication.

17. (Original) The method of Claim 15, wherein the schedule of transmission comprises a list of time intervals.

18. (Currently Amended) The method of Claim 17, wherein each time interval comprises a starting location in one of said communication frames a frame and a transmission duration.

19. (Original) The method of Claim 15, further comprising transmitting modulation control information for the time scattered data.

20. (Currently Amended) The method of Claim 18, wherein the communication frames are communications channel is divided into frames and wherein each frame is divided into a number of said time slots in accordance with a dividing rate.

21. (Original) The method of Claim 18, wherein the starting location comprises a time slot and the transmission duration comprises a number of time intervals.

22. (Currently Amended) The method of Claim 18, wherein the starting location comprises a first time interval identifier and the transmission duration comprises a [[an]] second time interval identifier.

23. (Original) The method of Claim 15, further comprising receiving data from the terminal device, transmitted in a scattered manner per the scattering instructions, and reordering the data in accordance with the scattering schedule to obtain the data in its originally intended order.

24-25. (Canceled)

26. (Currently Amended) Apparatus for transmitting data in a communication system wherein said data is transmitted in communication frames, the communication frames comprising predetermined time slots comprising:

means for receiving a request from a terminal device for access to a communications channel;

means for generating a schedule of transmission for the terminal device, the schedule for partitioning said data into intervals, each interval shorter in duration than each of said predetermined time slots, and placing at least two of said intervals into at least one of said communication frames, the at least two intervals placed within the at least one communication frame in a non-contiguous manner dividing the terminal device's transmissions of time slot data

of a time slot into at least two temporally non-contiguous time intervals; and
means for transmitting the schedule of transmission to the terminal device.

27. (Currently Amended) The apparatus of Claim 26, wherein the means for receiving the request comprises means for receiving an indication of an [[the]] amount of data queued at the terminal device for communication.

28. (Previously Presented) The apparatus of Claim 26, wherein the means for generating the schedule of transmission comprises means for generating a list of time intervals.

29. (Original) The apparatus of Claim 28, wherein each time interval comprises a starting location in a frame and a transmission duration.

30. (Original) The apparatus of Claim 26, further comprising means for transmitting modulation control information for the time scattered data.

31. (Original) The apparatus of Claim 26, wherein the communication frames are communications channel is divided into frames and wherein each frame is divided into a number of said time slots in accordance with a dividing rate.

32. (Original) The apparatus of Claim 26, further comprising means for receiving data from the terminal device, the data transmitted in a scattered manner in accordance with the scattering instructions, and means for reordering the data in accordance with the scattering schedule to obtain the data in its originally intended order.

33-34. (Canceled)

35. (Currently Amended) A terminal device for transmitting data in a communication system wherein said data is transmitted in communication frames, the communication frames comprising predetermined time slots, comprising:

means for receiving one or more scattering instructions, the scattering instructions

providing information for partitioning said data into intervals, each interval shorter in duration than each of said predetermined time slots, and placing at least two of said intervals into at least one of said communication frames, the at least two intervals placed within the at least one communication frame in a non-contiguous manner temporally scattering at least one portion of a plurality of time slot data, the temporal scattering dividing the at least one portion of time slot data of a time slot into at least two temporally non-contiguous time intervals; and
means for transmitting the communication frames temporally scattered data.

36. (Previously Presented) The terminal device of Claim 35, further comprising means for receiving configuration information, wherein the one or more scattering instructions are included with the configuration information.

37. (Original) The terminal device of Claim 35, further comprising a memory for storing time-scattering control information, wherein the one or more scattering instructions comprise an index into the memory.

38. (Canceled)

39. (Currently Amended) A terminal device comprising:
a receiver to receive data scattering instructions;
a transmitter to transmit, in accordance with the data scattering instructions, temporally scattered data ~~comprising time slot data, of at least one portion of a time slot,~~ divided into at least two temporally non-contiguous time intervals, each time interval having a duration shorter than a time slot duration.

40. (Previously Presented) The terminal device of claim 39, further comprising:
a processor responsive to the data scattering instructions to divide the time slot data into the temporally non-contiguous time intervals.

41. (Currently Amended) A terminal device for transmitting data in a communication system wherein said data is transmitted in communication frames, the communication frames

comprising predetermined time slots comprising:

a receiver configured to receive data scattering instructions;
a processor configured to divide, in accordance with the data scattering instructions, at least one portion of ~~time slot~~ said data of ~~a time slot~~ into at least two temporally non-contiguous ~~time~~ intervals, each ~~time~~ interval having a duration shorter than a duration of one of said predetermined time slots time slot duration.

42. (Currently Amended) The terminal device of claim 41, further comprising a transmitter configured to transmit the ~~time slot~~ data arranged within the non-contiguous time intervals.